

#### **Air Force Materiel**

War Winning Garlabilities ... On Time, On Cost





#### CONTRACT TYPES

Module Lead: OO-ALC/PKCA August 2007

Integrity ~ Service ~



#### **Course Overview**



- Length: 2 Hours
- Method of delivery: Slide Presentation
- Course contents:
  - Selecting a contract type after analyzing many factors
    - The Requirement
    - Production Stages
    - Risk
    - Competitive or Non-Competitive
    - Industrial Base, Market Research, Technology
    - Type of funds
    - ETC
  - Handout of Contract Types



#### **Overview**



- Selecting Contract Types
- Contract Risk
- Factors in Selecting Contract Type
- Contract Type by FAR Part
- Fixed Price Contracts
- Cost Reimbursement Contracts
- Other Contract Vehicles and Agreements



#### **Selecting Contract Types**



 Degree and Timing of Contractor Responsibility

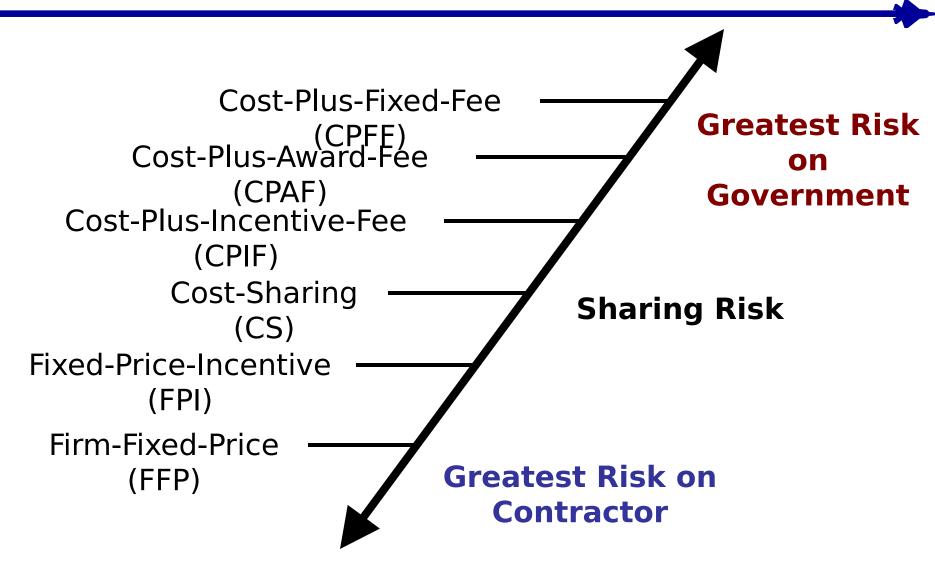
- Risk

 Amount & Nature of Profit Incentive Encouraging Contractor to Achieve Goal

Reward



#### **Profile in Contract Risk**





#### **Cost Risk & Contract Type**

COST RISK AND CONTRACT TYPE						
Cost Risk	High					Low
Requireme nt Definition	Vagu e					Well- define d
Production Stages	Concept Studies & Basic Researc h	Exploratory Developme nt	Test/ Demonstrati on	Full-scale Developme nt	Full Productio n	Follow-on Productio n
Contract Type	Varie d	CPFF	CPIF, FPIF	CPIF, FPIF, FFP	FFP, FPIF, FPEP A	FFP, FPIF, FPEP A

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### Factors in Selecting Contract Types



#### **Price Competition**

 Normally, price competition results in realistic pricing

#### **Price Analysis**

 With or without competition, may provide selection basis

#### **Cost Analysis**

 In the absence of price competition or price analysis



### More Factors in Selecting Contract Types



#### Type & Complexity of the Requirement

Complex contracts generally involves more Government risk

#### **Urgency of the Requirement**

 Government may choose to take on more of the risk

Contractor's Technical Capability and Financial Responsibility

#### **Extent & Nature of Proposed Subcontracting**

 Contract should be selected accordingly

**FAR 16.104** 



### More Factors in Selecting Contract Types



#### Adequacy of the Contractor's Accounting System

 Before agreeing on any contract type other than FFP, the CO should make sure the contractor can produce timely cost data in the form required by the contract. Concurrent Contracts

Consider pricing arrangements of other operating contracts

#### **Acquisition History**

Contractor risk usually decreases with repetitive acquisition



#### **Contract Type by FAR Part**

Contracts under FAR 13 would use FFP, if determined to be commercial items and any contract type if non-commercial

FAR 12 Commercial Items	FAR 14 Sealed Bidding	FAR 15 Contract By Negotiation
•Firm Fixed Price	•Firm Fixed Price	•Any contract
•Fixed Price w/EPA	•Fixed Price w/ EPA	type or combination of types



#### **Primary Contract Types**

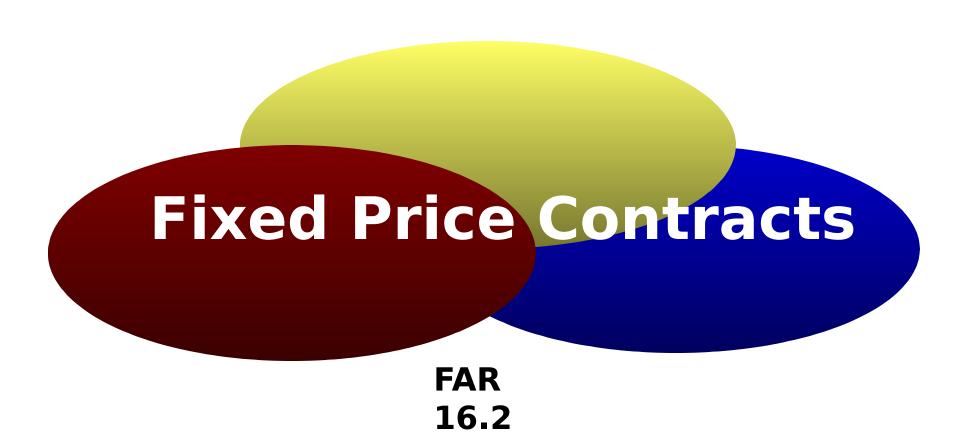


### "There are 2 Primary Contract Types"

Fixed
Price
Contracts

Cost
Reimburseme
nt
Contracts







#### **Fixed Price Contracts**





#### **Firm Fixed Price**



#### Description

- Price not subject to adjustment
- Contractor at maximum risk and full responsibility
  - For profit
  - For loss
- Minimum administrative burden on parties
- Contracts from sealed bidding can be only FFP, FP w/EPA

**Application** 

"A firm-fixed-price contract is suitable for acquiring commercial items or ...other supplies or services on the basis of reasonably definite functional or detailed specifications when the contracting officer can establish fair and reasonable prices at the outset..."

FAR 16.202



#### **Fixed Price Example**



A requirement exists for 35 portable toilets to be placed at ball field visitor gates, and other locations on base. An additional 100 are needed on a one time basis for the Armed Forces Day Open House.



### Fixed Price w/Economic Price Adjustment (EPA)



#### Description

- Fixed price contract with upward or downward revisions
  - Based on specified contingencies (not duplicated in base price)
- Three general types of Economic Price Adjustments
  - Established prices
  - Actual Costs of Labor or Materials
  - Cost indexes of Labor or Materials

"A fixed-price with economic price adjustment may be used when (i) there is serious doubt concerning the stability of market or labor conditions that will exist during an extended period of contract performance, and (ii) contingencies that would otherwise be include in the contract price can be identified and covered separately in the contract."



### Adjustments under Fixed Price with EPA



1. Restricted to "Industry-Wide Contingencies" Material & Labor contingencies should be beyond contractor's control

3. its necessary to protect the contractor and government

Or, CO must provide
for price adjustment
in case of changes
in contractor's
established prices



#### Fixed Price w/EPA Example



A requirement for a follow-on production aircraft component contains **nickel** as one of the key materials in the manufacture of the items. Contract performance is expected to be for a period of 5 years.



#### **Incentive Contracts**



#### Description

- When Firm Fixed Price is not appropriate
- Supplies and services can be acquired at lower costs by relating profit to performance
- Delivery and Technical performance can be acquired at lower costs by relating profit to performance

#### Incentives used:

- 1. Cost Incentives
- 2. Performance Incentives
- 3. Delivery Incentives
- 4. Multiple Incentives



### **Fixed Price Incentive** (Firm & Successive Target)



#### · Firm Target

- -Target Cost
- -Target Profit
- -Price Ceiling
- -Profit Adjustment Formula

Upon completion & final cost, final price is determined by formula

If final price exceeds
Price Ceiling, the
contractor suffers

#### Successive Target

- -Initial Target Cost
- -Initial Target Profit
- -Profit Adjustment Formula (floor/ceiling)
- -Production Point
- -Price Ceiling

At Production Point, negotiate "firm target"

- -Firm Target cost
- -Firm Target profit
- -May use FFIF or FFP



# Fixed Price Incentive Firm (FPIF)



#### Description

- The contractor has an opportunity to make a higher profit by completing the work below the ceiling price and/or meeting OBJECTIVE performance targets
- Once price exceeds Fixed Price ceiling, the contractor is responsible for all allowable costs over price ceiling



# Fixed Price Incentive Firm (FPIF)



#### **ELEMENTS**

**Target Cost** = **Projected cost** 

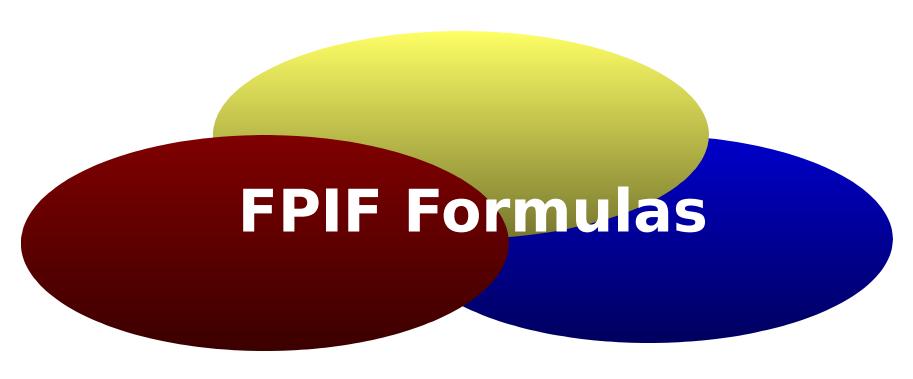
**Target Profit = Estimated profit for Target Cost** 

**Price Ceiling = Not-to-Exceed (NTE) Price** 

**Profit Adjustment Formula = Share Ratio** 

Or, how the contractor shares in Cost overruns & underruns





### REFER TO HANDOUT



# Fixed Price Incentive Firm (FPIF)



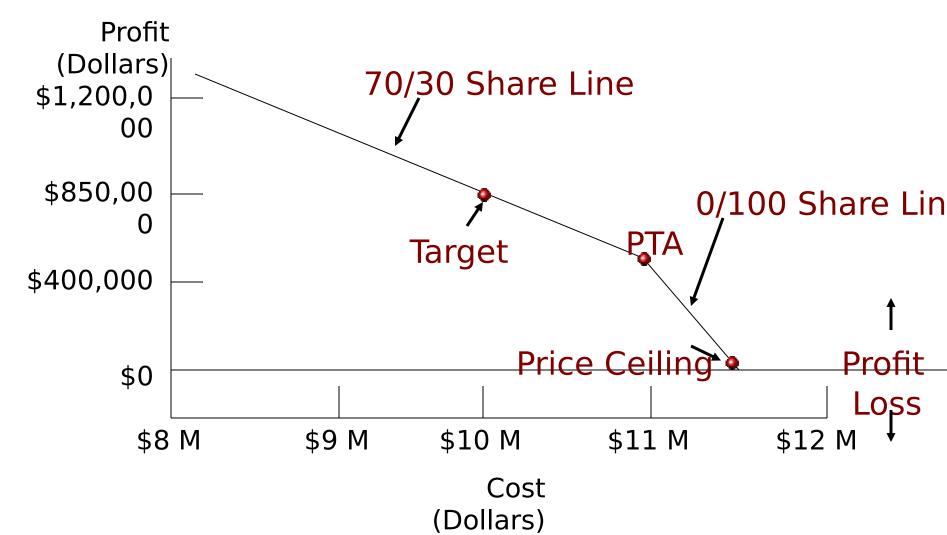
#### Example

<b>Target Cost</b>	\$10,000,000
<b>Target Profit</b>	\$850,000
<b>Target Price</b>	\$10,850,000
<b>Price Ceiling</b>	\$11,500,000
<b>Share Ratio</b>	70/30



# Fixed Price Incentive Firm (FPIF)







# Fixed Price Incentive Firm Example



A requirement exists for a new grounds maintenance contract. Two of the items included in the requirement are snow removal during the winter months and debris collection in the summer months when the area is subject to a lot of high wind storms. You want to include a pricing arrangement that will motivate the contractor to respond quickly to clear snowdrifts and remove limbs in the street.



### Fixed Price w/Award Fees (FPAF)



#### Description

- Establish a fixed price (including normal profit)
- Provide periodic evaluation of contractor performance against award fee plan
- Issue solicitation only when
  - Expected benefits exceed administrative costs
  - Established award-fee evaluation procedures/board
  - D&F approved at the appropriate level is required

**Application** 

"Award-fee provisions may be used in fixed-price contracts when the Government wishes to motivate a contractor and other incentives cannot be used because contractor performance cannot be measured objectively."



#### Fixed Price Award Fee (FPAF)



#### **ELEMENTS**

**Base Fee = not allowed in FPAF** 

Award Fee = Extra earned for performance of evaluation factors

Award Fee Plan = "Living Document"

Award Fee Board = Management team which evaluates factors, prepares report

Fee Determining Official = Final Decision



# Fixed Price w/Award Fee Example



A requirement is being worked for a copier maintenance contract. The requirements are pretty cut and dry but in the past end users have not been particularly happy with the service they've received. The contractor always leaves a mess when they are finished and seem to show up to perform maintenance when demand for the copier is greatest, creating a backlog of copying. You think potential awardees would be more responsive to more money for better service.



\$10,000

True or False?



No incentive contract may be provided for other incentives without also providing a Cost incentive or constraint



#### Answer



True!



\$10,000

### True or False?



RE: Firm Fixed Price w/ EPA
The CO should ensure contingency
allowances are included in the base
price and in any adjustments
requested by the contractor.



#### Answer





\$25,000

# Contracts resulting from sealed bidding can be only...



- A. Firm-Fixed Price or Fixed Price w/ Award Fees
- **B. Firm-Fixed Price or Cost-Plus-Fixed Fee**
- C. Firm-Fixed Price or Fixed Price w/ Economic Price Adjustment
- **D. Firm-Fixed Price or Cost-Plus-Award Fee**



#### Answer



#### C Firm Fixed Price & Fixed Price w/ EPA!



#### Fixed Price w/

(Prospective/Retroactive) Price Re-

determination



- **Prospective** 
  - 1. FFP for initial delivery period can be established
  - Ke-determine price at every 12 months (or more) during future performance
  - 3. Price Ceiling may be established to allow contractor so share risk

- Retroactive
- 2. Award after fair billable rate is negotiated
- 3. Price re-determined within ceiling after completion of contract
- 4. Useful for R&D >\$100K
- 5. Price Ceiling established to allow

AM FARel 6-205 thru 20**3**6



## Firm Fixed Price, Level of Effort



#### Description

- Contractor provides a specified "level of effort"
  - Over a stated period of time
  - Work required can only be stated in general terms
- Contract amount less than \$100K (unless higher approved)
- Agreed that result cannot be achieved with less effort

Level of Effort agreed; µpon in advance

"A firm-fixed price, level-of-effort term contract is suitable for investigation or study of a specific research and development area. The product of the contract is usually a report showing the results achieved through the application of the required level of effort. However, payment is based on the effort expended rather than on the results achieved."





**FAR 16.3** 



## **Cost Reimbursement Contracts**



Cost	Cost Plus Award Fee
<b>Cost Sharing</b>	Cost Plus Fixed Fee
<b>Cost Plus Incentive Fee</b>	



## **Cost Reimbursement Contracts**



#### Description

- For reimbursement for Allowable Incurred Cost
- Cannot estimate accurately enough for FP contract
- Obligate funds and Establish a Ceiling

#### **Application**

#### **Use only if:**

- 1. Adequate contractor accounting system
- 2. Appropriate Government Surveillance
- 3. Statutory limit on the fee (FAR 15.404-4(c)(4))
- 4. Acquisition of non-commercial items

**FAR 16.302** 





#### Description

- A cost-reimbursement contract
- Contractor receives no fee

#### **Application**

"A cost contract may be appropriate for research and development work, particularly with nonprofit educational institutions or other nonprofit organization, and for facilities contracts."



#### **Cost Example**



There is a requirement for a study of earthquake fault lines in the eastern United States, for which universities and colleges with Geology Departments may be interested in performing. A cost contract with no fee would be appropriate in this instance since universities/colleges are not for profit organizations.



#### **Cost Sharing**



#### Description

- Cost-reimbursement contract
- Contractor receives no fee
- Reimbursed only for agreed-upon portion of allowable costs

#### **Application**

"A cost-sharing contract may be used when the contractor agrees to absorb a portion of the costs, in expectation of substantial compensating benefits."



#### **Cost Incentive Contracts**



#### Description

- When Firm Fixed Price is not appropriate
- Supplies and services can be acquired at lower costs by relating profit to performance
- Delivery and Technical performance can be acquired at lower costs by relating profit to performance
- Prohibited: Cost-Plus-Percentage-of-Cost Incentives used:
  - 1. Cost Incentives
  - 2. Performance Incentives
  - 3. Delivery Incentives
  - 4. Multiple Incentives



#### **Cost-Plus-Incentive Fee**



#### Description

- Initially negotiated fee adjusted later by formula
- Fee Adjustment Formula based on Total allowable costs vs. Total target costs
- Specifies target cost, target fee and min & max fees
- If Total Allowable < Total target, then Fee</li>
   If Total Allowable Specification
- "Appropriate for services or development and test programs when...cost reimbursement contract is necessary; and a target cost and a fee adjustment formula can be negotiated that are likely to motivate the contractor to manage effectively."



## **Cost Plus Incentive Fee** (CPIF)



#### **ELEMENTS**

**Target Cost** = **Projected cost** 

**Target Profit = Estimated profit for Target Cost** 

**Price Ceiling = NTE Price** 

**Profit Adjustment Formula = Share Line** 

OR, how the contractor shares in Cost overruns & underruns



## **Cost Plus Incentive Fee** (CPIF)



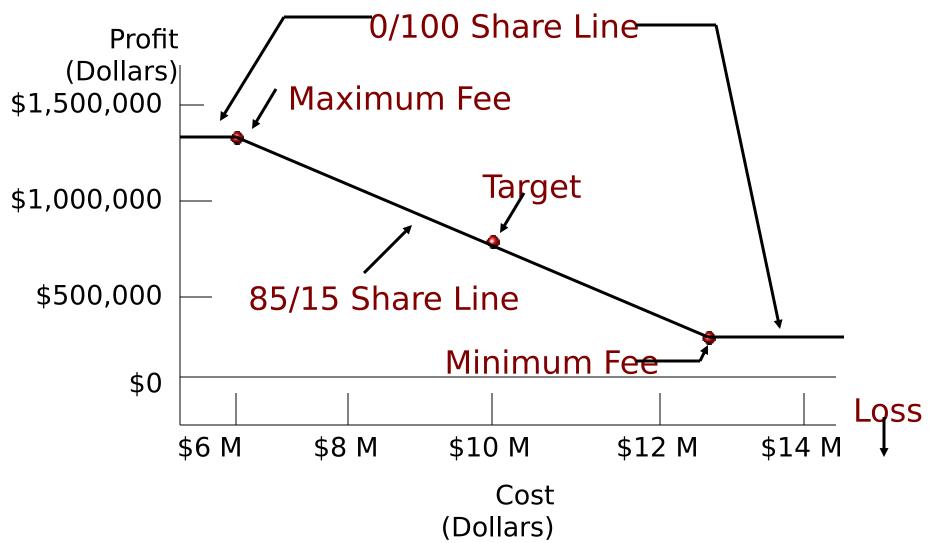
#### Example

<b>Target Cost</b>	\$10,000,000
<b>Target Profit</b>	\$750,000
Maximum Fee	\$1,350,000
Minimum Fee	\$300,000
<b>Share Ratio</b>	85/15



## **Cost Plus Incentive Fee** (CPIF)







## **Cost Plus Incentive Fee Example**



A requirement is being worked for a new military cargo plane. The customer wants to improve the speed and payload capacity of the aircraft, but also wants a better price. A CPIF contract would motivate the contractor to make these improvements while holding the price down.



#### **Cost-Plus-Award Fee (CPAF)**



#### Description

- Cost reimbursement with base reimbursement
- Award fee earned in whole or part by performance
  - Gov't unilaterally determines criteria for award fee
  - Fee paid by Gov't judgment based on contract criteria
- Fee should be sufficient to motivate excellence
  - Quality, Timeliness, Technical Ingenuity
  - Cost-Effective Management

**Application** 

"The cost-plus-award-fee is suitable for use when...the likelihood of meeting acquisition objectives will be enhanced by using a contract that effectively motivated the contractor toward exceptional performance and provides the Government with the flexibility to evaluate both actual performance and the conditions under which it was achieved.



#### **Cost Plus Award Fee**



#### **ELEMENTS**

Base Fee = What the contractor receives even at \$0 award fee

Award Fee = Extra earned for performance of evaluation factors

**Award Fee Plan = "Living Document"** 

Award Fee Board = Management team which evaluates factors

**Fee Determining Official = Final Decision** 



#### **Cost Plus Award Fee**



#### Motivate and reward a contractor for -

Purchase of capital assets (including machine tools) manufactured in the US, on major defense acquisitions programs; or

Management performance areas which cannot be measured objectively and where normal incentive provisions cannot be used

**Logistics support** 

Quality

**Timeliness** 

**Ingenuity** 

**Cost effectiveness** 

These are areas under the control of management which may be susceptible only to subjective measurement and evaluation.

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#### **Cost Plus Award Fee**



#### **Positives**

Tailor incentives to desired performance objectives

Focus on key risk items
Stabilize long term relations

#### **Negatives**

Cumbersome and bureaucratic Key players change - may affect continuity Evaluations can at times appear "punitive"



#### **Cost-Plus-Fixed Fee**



#### Description

- Payment of negotiated fee fixed
  - Statutory fee limitations apply (FAR 15.404-4(c)(4))
- Fee may be adjusted as a result of contract changes
- Permits contracting efforts where contractors may otherwise be at too great a risk
- Contractor has minimal incentive to control costs
- Not used once preliminary studies indicate achievable results

**Application** 

"The contract is for the performance of research or preliminary exploration or study, and the level of effort required is unknown; or the contract is for development and test, and using a cost-plus-incentive-fee is not practical... normally should not be used in development of major systems."



#### **Cost Plus Fixed Fee (CPFF)**



#### **ELEMENTS**

- ESTIMATED COST
- FIXED FEE

Contractor is entitled the Fixed Fee...regardless of the actual cost



#### **Cost-Plus-Fixed Fee**



- "Completion" Form
- 1. Describes scope of
  - Stating a definite goal or target
  - Specifying an end product
- 2. Contractor required to deliver the specified end product within estimated cost as condition of payment

- · "Term"
- 1. Describes scope
  - In general terms
  - Obligates
    contractor to a
    level-of-effort for
    a specified time
- 2. If the Gov't considers performance satisfactory contractor is paid fixed fee at the end of the specified time



#### **Cost Plus Fixed Fee Example**



The Navy is attempting to develop a process which, when applied to the hulls of ships will render them non-magnetic. They want to replace the older wooden-hulled mine sweeps. Market research indicates nothing of that nature is being produced. As a result, an exploratory development contract is needed.



## **Cost Reimbursement** - **Contract Clauses**



#### **Cost-type Contracts**

- **52.216-7** Allowable Cost and Payment
- 52.216-8 Fixed Fee
- **52.216-9** Fixed Fee Construction
- 52.216-10 Incentive Fee
- 52.216-11 Cost Contract No Fee
- **52.216-12 Cost Sharing Contract No Fee**
- **52.216-15 Predetermined Indirect Cost Rates**
- **52.232-27 Prompt Payment for Construction Contracts**

#### **Incentive-type Contracts**

- **52.216-7** Allowable Cost and Payment
- **52.216-10 Incentive Fee**
- **52.216-16 Incentive Price Revision Firm Target**
- **52.216-17 Incentive Price Revision Successive**
- **Targets**



\$50,000

# Cost Reimbursement Contracts allow for payment of...



- A. Allowable Retroactive Costs
- **B. Allowable Projected Costs**
- C. Allowable Incurred Costs
- **D. Allowable Advanced Costs**



#### Answer



#### C. Allowable Incurred Costs!



#### \$50,000

# Cost Reimbursement Contracts should be used only when uncertainties don't permit costs to be...



- A. Projected in the government estimate
- B. Estimated accurately enough for FP contract
- C. Projected past 1 year
- D. Quantified for minor parts of the scope



#### Answer



B. Estimated Accurately enough for FP!



#### \$100,00 0



## Cost Reimbursement Contracts can be used only with...

- A. Adequate contractor accounting system
- **B.** Appropriate Government Surveillance
- C. Acquisition of non-commercial items
- D. All of the above



#### Answer



#### D. All of the above!



#### Cost\$100,000

Reimbursement Contracts establish an estimated total



- cost in order to...
  A.Obligate funds and Establish a Floor
- **B.Obligate funds and Establish a Ceiling**
- C. Deobligate funds and Establish a Wall
- D.Deobligate funds and Establish a Skylight



#### Answer



Obligate Funds and Establish a Ceiling.



\$250,000

## Cost & Fixed Incentive Contracts should be used when...



- A. Firm Fixed Price is not appropriate
- B. Supplies and services can be acquired at lower costs by relating profit to performance
- C. Delivery and Technical performance can be acquired at lower costs by relating profit to performance
- D. All of the above



#### Answer



D. All of the above!



\$250,00
Cost & Fixed
Incentive
Contracts can use
which of the
following...



- **A. Cost Incentives**
- **B. Performance Incentives**
- **C.** Delivery Incentives
- D. All of the above



#### Answer



D. All of the above!



#### \$500,000

### Which contract type is prohibited?



- **A.**Cost-Sharing
- **B. Cost-Plus-Award-Fee**
- C. Cost-Plus-Percentage-of-Cost
- **D.None of the Types Above**



#### Answer



C. Cost-plus-percentage-of-cost!



## \$500,000 Contracts under FAR 15 (Contract By Negotiation) can be...



- A. Firm-Fixed Price, Fixed Price w/ EPA only
- B. Firm-Fixed Price, Cost-Plus-Award-Fee, Cost-Plus-Fixed Fee only
- C. All types except Time & Materials / Labor-Hour
- D. Any type or combination of types



#### Answer



D. Any type or combination of types!



## **Other Contract Vehicles...**



Indefinite
Delivery
Time &
Materials
Labor-Hour

**Letter Contracts** 

**Basic Agreements** 

Basic Ordering Agreements (BOAs)



# **Indefinite Delivery - Three Types**



### Definite Quantity Contracts

» Definite Quantity of supplies or services during a fixed period

### Indefinite Quantity Indefinite Delivery (IDIQ) Contracts

- » Minimum & Maximum
- » Indefinite Quantity of supplies or services during a fixed period

### Requirements Contract

- » Best Estimated Quantity (BEQ)
- » Provides for filling actual requirements by placing order during a fixed period
- » All known government requirements (of that sort) will be placed with that contractor

**FAR 16.5** 



## **Indefinite Delivery - Contract Clauses**



#### **Definite-Quantity**

- 52.216-18 Ordering
- **52.216-19 Order Limitations**
- 52.216-20 Definite Quantity

#### **Indefinite-Quantity**

- 52.216-18 Ordering
- **52.216-19 Order Limitations**
- **52.216-22 Indefinite Quantity**
- **52.216-27 Single or Multiple Awards (if multiple award)**
- 52.216-28 Multiple Awards for A&AS (if A&AS multiple
- award over 3 years and \$10)
- 5353.216-9000 Awarding Orders Under Multiple Award Contracts (if multiple award)

#### **Requirements**

- 52.216-18 Ordering
- 52.216-19 Order Limitations
- 52.216-21 Requirements



### Requirements Example



A contract is needed for maintenance and repair of hand held portable radios over the next five years. Historical data indicates between 15-20% of the radios will require some type of repair during any given year.



# Time & Materials (T&M), Labor Hours



#### Description

- Payment for direct labor hours at a fixed hourly rate (including overhead, G&A and profit)
- Payment for materials at cost (including handling costs)
- No positive profit incentive for cost control or labor efficiency
   Application

"May be used only when it is not possible at the time of placing the contract to estimate accurately the extent or duration of the work or to anticipate costs with any reasonable degree of confidence...may be used (1) only after the contracting officer executes a determination and findings that no other contract is suitable; and (2) only if the contract includes a ceiling price that the contractor exceeds at it's own risk.



### **Letter Contracts**



#### Description

- Preliminary contract that authorizes contractor to begin work immediately
- Includes (not-to-exceed) price ceiling

#### **Application**

A letter contract may be used when (1) the Government's interests demand that the contractor be given a binding commitment so that work can start immediately and (2) negotiating a definitive contract is not possible in sufficient time to meet the requirement.



## **Letter Contract Example**



The roof has blown off the commissary warehouse and \$3,000,000 in merchandise could be at risk.



# Basic Agreement & Basic Ordering Agreement



#### Description

- Use when multiple awards anticipated w/contractor
- Written statement of understanding containing clauses
- BOAs: Possible description of supplies and services
- Neither are contracts

#### **Application**

When a substantial number of separate contracts may be awarded to a contractor during a particular period and significant recurring negotiating problems have been experienced with the contractor.



\$1,000,000

True or False?



A Time & Material contract provides no positive profit incentive for cost control or labor efficiency.



## Answer



True!



\$1,000,00

A T&M contract may not be awarded before execution of which?



- A.Any required Determination & Findings
- **B.** Any required Funding Documents
- C. Any required Definitized Cost or Pricing Data
- **D.Any required New SPS versions**



### Answer



## Any Required Determination & Findings!



